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The effect of demographic change on state and local government budgets

By Richard F. Dye

a. "The times they are a-changin'." (Bob Dylan)

b. "You ain't seen nothin' yet." (Randy Bachman)

c. "If something cannot go on forever, it will stop." (Herb Stein)

d. All of the above.

Federal Budget Projections

The impact of an aging society on fiscal institutions has garnered considerable attention of late, mostly in connection to the federal Social Security program. Consider some projections from the Congressional Budget Office:

Table 1. Federal Spending as a percentage of Gross Domestic Product

Spending Category	Actual 2005	Projected 2010	Projected 2030	Projected 2050
Social Security	4.2	4.2	6.0	6.4
Medicare & Medicaid	4.2	5.0	9.2	12.6

Source: Congressional Budget Office, *The Long-Term Budget Outlook*, December 2005, U.S. Congress (http://cbo.gov/ftpdocs/69xx/doc6982/12-15-LongTermOutlook.pdf).

In the reference budget year of 2005, federal government spending on Social Security, which provides old-age, survivors and disability insurance, accounted for 4.2 percent of total GDP. If nothing is done to cut the cost of the program, by 2050 it will consume 6.4 percent of GDP: it will have increased its share by *more than one-half*. So either another 2.2 percent of everything produced in the U.S. economy will need to be diverted into paying for the promised level of benefits under Social Security, or those promises will have to be cut by *more than one-third* (from 6.4 to 4.2 percent) in order to maintain the existing share. Despite widespread awareness of a looming crisis in Social Security funding, there is no political consensus on a policy solution. Voters do not seem to want to hear about either rising costs or looming cuts, and politicians are understandably wary of being messengers of doom. Hence, Social Security—at least cuts in benefits or increases in taxes to pay for it—has been called the "third rail" of American politics.

The public is much less aware of the other information in Table 1, a projection of enormously larger future costs for Medicare and Medicaid. Note that between 2005 and 2050 the share of GDP needed to maintain spending on Medicare and Medicaid is expected to *triple*, from 4.2 percent to 12.6 percent.[1] We cannot reach a consensus on what to do about the fairly well-known problem of Social Security absorbing an extra 2.2 percent of GDP.

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How much more worrisome, then, is the still largely undiscussed prospect of an extra *8.4 percent* of GDP being sucked up by Medicare and Medicaid? ***The times, they are a-changin'***, even if we have not caught on yet.

The increased future cost of Social Security is driven by three demographic factors—longevity, fertility, and the Baby Boom. Improvements in life expectancy mean that, assuming the same retirement age, recipients collect benefits for more years. Decreases in the birth rate mean relatively fewer new working taxpayers to support the retirees by producing output and paying taxes. The baby boomers are the comparatively large age cohort born between 1946 and 1964. The early retirement (reduced benefit) age for Social Security is 62 and the normal retirement age (full benefit) is scheduled to increase to 67 for those born after 1960. The baby boomers will thus start collecting Social Security benefits between 2008 (= 1946 + 62) and 2031 (= 1964 + 67), and the program's costs will rise accordingly.

These same demographic trends play their part in the growing expense of Medicare, which is specifically targeted to older people, and of Medicaid, which is targeted to those with lower incomes, including a large share of the aged. However, most of the projected increase in Medicare and Medicaid cost stems from rising per-beneficiary expenditures on medical care, relative to other goods and services.

State Demographics

The same demographic and health-cost forces putting long-term pressure on the federal budget also affect state and local governments. As Table 2 shows, however, there are considerable differences across the states in the age distribution of the population, and thus the severity of these forces. As of 2000, 12.4 percent of the U.S. population was 65 or older. States varied from that average quite a bit, as the standard deviation across states was 1.9 percentage points, and the range ran from a low of 5.7 percent in Alaska to a high of 17.6 percent in Florida. Next, consider the Census Bureau's population projections for 2030. In the U.S. as a whole, the 65-plus age group will have grown from 12.4 to 19.7 percent of the population. This projected increase in the elderly share of the population also varies greatly across states around the nationwide average of 7 or 8 percent: from less than a 6 percentage point increase in Illinois and five other states to an almost 15 point jump in New Mexico and Wyoming.

Let's take a step back to frame just how dramatic this increase is. We noted that in the 2000 Census, Florida was the state with the largest share of the population age 65 or older, 17.6 percent. Only

Table 2: Variation Across States in Distribution of Population by Age

	Age 0-4	Age 5-19	Age 20-24	Age 25-64	Age 65 plus
2000 Census					
United States	6.8 %	21.8 %	6.7 %	52.2 %	12.4 %
Utah (youngest)	9.4 %	26.9 %	10.1 %	45.1 %	8.5 %
Illinois (18th youngest)	7.1 %	22.0 %	6.9 %	52.0 %	12.1 %
Florida (oldest)	5.9 %	19.4 %	5.8 %	51.3 %	17.6 %
Standard Deviation	*0.6 %*	*1.4 %*	*0.7 %*	*1.9 %*	*1.9 %*
2030 Projections					
United States	6.7 %	19.5 %	6.4 %	47.8 %	19.7 %
Utah (youngest)	9.1 %	24.8 %	8.2 %	44.6 %	13.2 %
Illinois (10th youngest)	6.9 %	19.9 %	6.6 %	48.6 %	18.0 %
Florida (oldest)	5.7 %	16.6 %	5.5 %	45.1 %	27.1 %
Standard Deviation	*0.8 %*	*1.7 %*	*0.7 %*	*1.6 %*	*3.3 %*

Source: U.S Census, "State Interim Population Projections by Age and Sex," files released April 21, 2005 (http://www.census.gov/population/www/projections/projectionsagesex.html).

two other states, Pennsylvania and West Virginia, had retirement-age shares above 15 percent. The projections are that by 2030, when the last of the baby boomers have reached retirement age, all but three of the states will have populations at least 15 percent of which are 65 or older. No state is projected to have a larger share of its population in the working-age range of 25-64 in 2030—not even youthful Utah. America will not become the United States of Florida as some have suggested—we'll be much older.

The burden of supporting a larger elderly population falls primarily on those of working age, who are producing the output that must be taxed away, transferred, or traded for financial assets to support consumption of goods and services by the elderly. Table 3 shows two versions of what is called the "old-age dependency ratio," the number in the population 65 and older (or 80 and older) divided by the number in the population age 25 to 64 (for Census year 2000 and projected for the next three decades). [For a version of Table 2 showing all 50 states see http://www.igpa.uillinois.edu/lib/data/pdf/PolicyForum20-1Supplemental.pdf.]

We have already seen that the share of the population age 65 and older is projected to grow significantly in every state over the 2000-2030 period, so it is no surprise from the first and last columns of the top panel of Table 3 that the dependency ratio increases as well. The increase is remarkably large. The U.S. dependency ratio will increase from 23.8 in 2000 to 41.1 in 2030, a relative increase of 73 percent (17.3/23.8). No state has a relative increase of less than 50 percent over these 30 years; Illinois has a relative increase of almost 60 percent (from 23.2 to 36.9); in seven states the dependency ratio is projected to more than double. Looking across the rows of Table 3 shows that the increase in the dependency ratio is generally modest from 2000 to 2010, larger from 2010 to 2020, and very large from 2020 to 2030. The demographic shift to an older population distribution has started, but ***you ain't seen nothin' yet.***

The American states are not just getting older in terms of the fraction of the population over the threshold level of 65. With improvements in longevity, the fraction over even higher age thresholds is also increasing. The old-old, say those 80 years and older, are much more likely to be fully retired and not producing output or paying income taxes, to need costly medical care, and to be "dependent" in other meaningful ways. The bottom panel of Table 3 displays the "old-old dependency ratio," the number in the population age 80 and over divided by the number age 25-64. The rate of increase of the 80-or-older dependency ratio is even more dramatic than for the 65-or-older group: a relative increase of 80 percent overall; a relative increase of 66 percent in Illinois; and more than doubling in 13 states.

America is getting old, old-old, and state and local

Table 3: Variation Across States in Two Sets of Old-Age Dependency Ratios by decade

	2000 Census	2010 Projection	2020 Projection	2030 Projection
Age 65+ / Age 25-64				
United States.	23.8%	24.6.%	31.8 %	41.1%
Utah (youngest)	18.9%	19.0.%	24.9 %	29.6%
Illinois	23.2%	23.4.%	29.2 %	36.9%
Florida (oldest)	34.2%	34.0.%	43.7 %	60.0%
Standard Deviation	*3.9 %*	*3.2 %*	*4.4 %*	*7.3 %*
Age 80+ / Age 25-64				
United States.	6.2%	*7.2 %*	*7.8 %*	11.2%
Utah (youngest)	4.9%	*5.3 %*	*5.9 %*	8.0%
Illinois	6.4%	*7.2 %*	*7.7 %*	10.5%
Florida (oldest)	9.0%	*10.3 %*	*10.5 %*	15.1%
Standard Deviation	*1.4 %*	*1.4 %*	*1.4 %*	*2.3 %*

Source: U.S Census, "State Interim Population Projections by Age and Sex," files released April 21, 2005 (http: www.census.gov/population/www/projections/projectionsagesex.html).

government policymakers need to pay attention to that inexorable trend.

State and Local Government Budgetary Pressures

The American public is becoming aware that the nation is aging, but doesn't seem to notice the many implications of this trend. Policymakers and students of public policy are only starting to highlight how the aging trend affects more than just Social Security.[2] Let's introduce some areas worthy of increased study.

A. ***The expenditure side of the budget***

1. *Medical costs*

a. *Medicare and Medicaid*

The good news for the states is that Medicare is (for the moment) a purely federal program. Medicaid, however, is a joint federal-state program with a cost-matching formula, and state shares range from 24 percent (in the lowest income states) to 50 percent (in the highest income states). State legislators and governors have become acutely aware of the pressure on state budgets flowing from the Medicaid program, since they have had to share the pain of growing Medicaid costs in recent decades. Whether they are aware of projections of just how much worse things might get in the future (see Table 1) remains to be seen. If, as might easily be predicted, the federal government responds to the enormous pressure on its own budget by decreasing match rates, restricting other state aid, or tightening other requirements, the pressure on state budgets could become extreme.

b. *Retiree medical insurance*

State and local government employees generally have good health insurance coverage promised for their retirement. There has long been a requirement for state and local governments to provide actuarial estimates of the present value of future *pension* obligations and, to an extent, to pre-fund those obligations (more on this below). Up until this year, however, there was *no* corresponding requirement to account for or to pre-fund *other post-employment benefits* (OPEB) like future retiree health care costs. The Government Accounting Standards Board recently promulgated new standards, called GASB-43 and GASB-45, requiring that other post-employment benefit costs be accounted for and amortized. The new requirements are being phased in from 2007 to 2009, so the extent of this previously un-accounted for and unfunded liability will be revealed over the next several years. There is reason to believe that these standards could put considerable pressure on many state and local government budgets: "Based on early estimates, issuers generally are reporting [annual required contributions] of anywhere from two to 10 times the current pay-as-you-go amount."[3]

2. *Retiree pensions*

As noted above, state and local governments already must account for future pension liabilities. Most states, however, have not fully funded those prospective obligations. In a study of state retirement systems for fiscal year 2006, Wilshire Consulting found four-fifths of the plans with a market value of assets below liabilities, and an average funding ratio of 88 percent.[4] When the public employees actually retire, as the baby boom generation is starting to do, the obligations will become current and will put direct pressure on other items in the budget.

3. *Education spending*

The Census projections show a decline in school-age and college-age populations in most states over the next 20 or 30 years. This shift will have implications for the demand for educational services—other things equal, fewer students require few teachers and other resources. There is evidence from the beginning of this decade that cuts in state revenues led to significant cuts in state aid to local public education. As states experience pressures on their budgets from future demographic and health-cost trends, local school districts should be concerned.

4. *Other state and local government spending*

An aging population may have a direct impact on many other components of state or local government spending—like prisons, highways, or social services. Good long-range estimation by specialists in each of these different areas is warranted.

B. ***The revenue side of the budget***

1. *Income taxes*

Forty-one states have a broad-based individual income tax, and 14 of these have some form of local government income tax. What does an aging population mean for state income tax collections? The answer depends, of course, on the details of tax law. In particular, the state income tax treatment of pension and retirement income is critical. Illinois, for example, is one of only three income-tax states that fully exempt private pension income, and one of only eight states that fully exempt public employee pensions. Illinois, therefore, will experience a significant loss of revenue as the share of the population drawing pensions increases.

2. *Sales taxes*

Forty-five states have a general sales tax, and 36 of these share revenue with local governments. The impact of an aging population on sales tax revenues will depend on age-specific expenditure patterns and expenditure-specific exemptions from the sales tax base. For instance, the exemption of medical services and prescription drugs from the sales tax in most states suggests that revenues may decline as the population ages.

3. *The property tax*

The mainstay of local government finance in most states is the property tax. Many states give age-conditioned homestead exemptions from the property tax, which would affect collections as the population ages.

Conclusion

There are some fairly direct effects of an aging population on different types of state and local government expenditures and revenues, some of which have been mentioned here. There are also some important indirect effects. In a system of fiscal federalism, serious pressures on federal government budgets will affect grants to state and local governments, may lead to devolution of responsibility for certain government services, and may lead to federal preemption of revenue sources traditionally used by the states. Similarly, pressure on state budgets will trigger pressure on local governments. Another source of indirect pressure is across budget items. For example, there may be no direct link between the age of the population and, say, infrastructure spending, but increased pressure to fund medical care will make it harder to pass a budget with more funding for bridge repair.

It is probably not possible, politically, for the share of GDP devoted to federal spending on Social Security, Medicare and Medicaid to grow by more than double from 9 to 19 percent (as in the CBO projections), particularly if there is a corresponding 5 percent or more of GDP devoted to *state* spending on medical care and other services to the elderly. ***If something cannot go on forever, it will stop.***

It is imperative to see that there must be very major changes in government services or in the distribution of costs of government services to deal with the forces driving these predictions. Let the study and public debate begin. [For references and additional readings see http://www.igpa.uillinois.edu/lib/data/pdf/PolicyForum20-1Supplemental.pdf.] ■

1 This prediction may even be low, as it assumes that the per capita cost of Medicare and Medicaid will grow at only 1.0 percent in excess of GDP per capita, which is at the low end of the last 30 years of experience.

2 For an excellent example, see "Population Aging: Are Governments Ready?" Illinois State Comptroller's *Fiscal Focus*, July 2007. http://www.apps.ioc.state.il.us/ioc-pdf/FFWeb0707.pdf.

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4 Wilshire Consulting, "2007 Wilshire Report on State Retirement Systems: Funding Levels and Asset Allocation," Wilshire Associates Incorporated, March 5, 2007. http://www.wilshire.com/BusinessUnits/Consulting/Investment/2007_State_Retirement_Funding_Report.pdf.

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